preprocessing/ organization

110

Update/Develop lexicon in order to define semantic space

120

Semantic Distances Calculated/Set and Meanings related to each Meaning Calculated

115

Meanings attached to Subject Nodes/ Target documents positioned in semantic space

130

Scores for Nodes near to each Meaning Calculated

Retrieval

140

Receive user inputof serach terms/meanings

150

Interpret input string as specific Meanings

160

Collection and Ranking of Nodes for these Meanings

Results Presentation

— Refine Search —

Show Meanings, allow user to refine search

170

— Go to Node —

Show Node results, allow user to navigate to Nodes

180

FIGURE 1

0003.P001

Lexicon 200

```
  sport                    equipment


      skiing              athletic
                          equipment                              company


slalom skiing      ski              surfboard              athletic
                                                           equipment
                                                           company


         bindings       K2 ski  ←→  K2
```

LEGEND:

———▷——— "part of" relationship

———▶——— "kind of" relationship

◀————▶ lateral bond relationship

FIGURE 2
0003.0001

| sport | 7 |

| equipment | 11 |

| skiing | 2 |

| athletic equipment | 2 |

| company | 19 |

| slalom skiing | 6 |

| ski | 0 |

| surfboard | 12 |

| athletic equipment company | 12 |

| bindings | 4 |

| K2 ski | |

| K2 | 8 |

5

LEGEND:

strong relationship

medium relationship
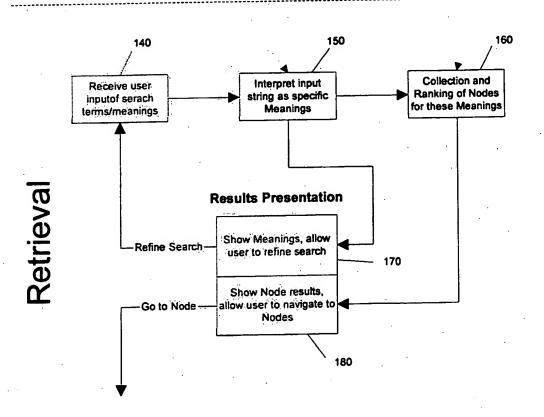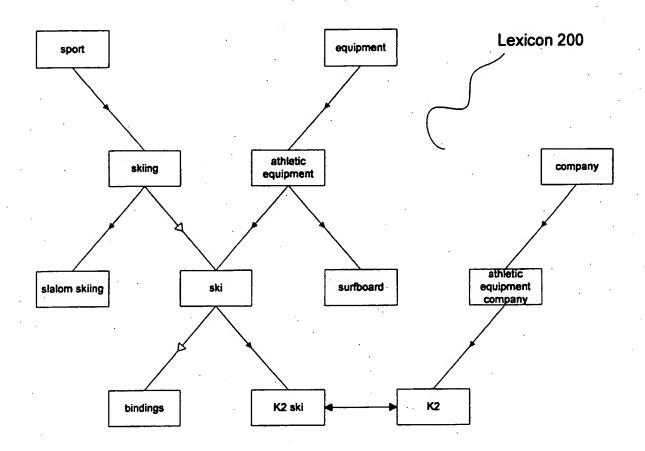
weak relationship

X   distance from "ski"

FIGURE 3

0003.P001

Mean... Based Advertising and Document Relevance De... ination"
Applicants: Adam J. WEISSMAN et al.
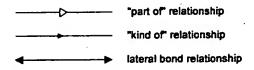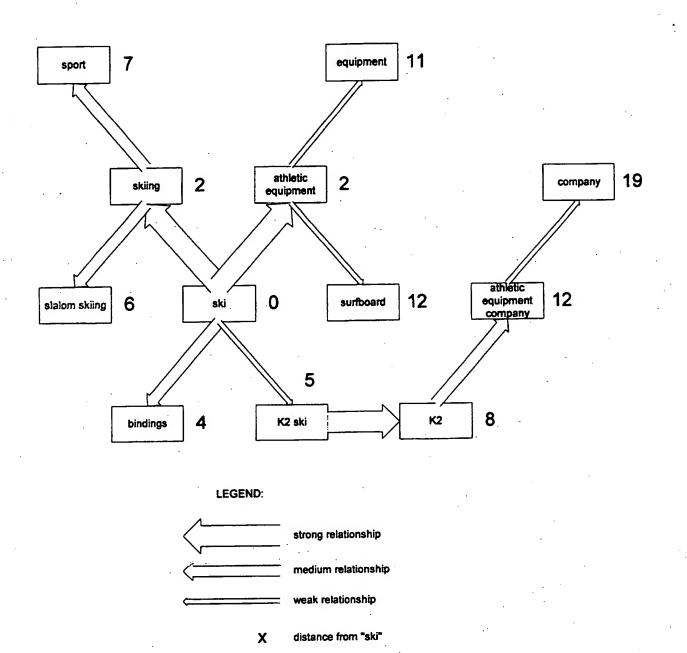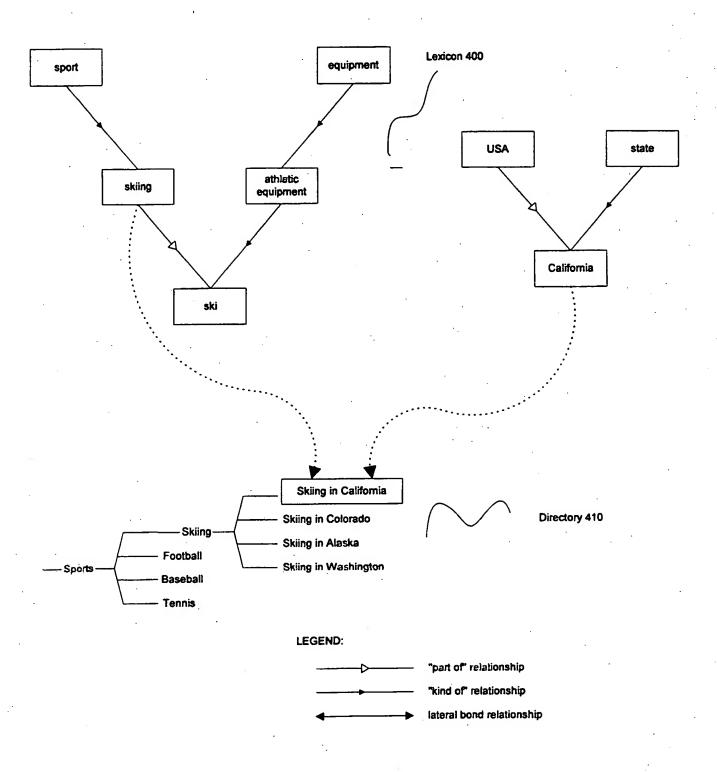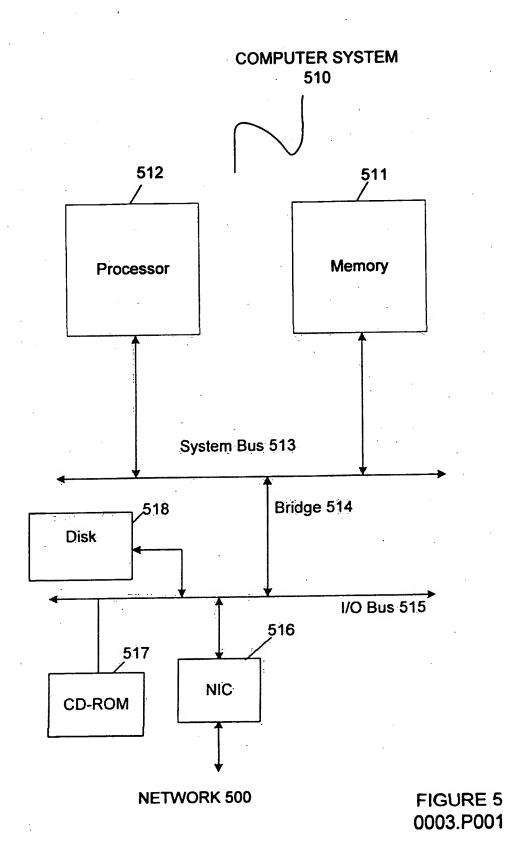Attorney Docket No. 64557.000015

Lexicon 400

```
   sport                    equipment                    USA            state

      skiing          athletic                           California
                      equipment

              ski
```

```
                              Skiing in California
                              Skiing in Colorado
                    Skiing ─┤ Skiing in Alaska
                              Skiing in Washington
       Sports ─┤ Football
                 Baseball
                 Tennis
```

Directory 410

LEGEND:

▷──── "part of" relationship

──▶ "kind of" relationship

◀───▶ lateral bond relationship

FIGURE 4
0003.P001

COMPUTER SYSTEM
510

512

511

Processor

Memory

System Bus 513

Bridge 514

518

Disk

I/O Bus 515

516

517

CD-ROM

NIC

NETWORK 500

FIGURE 5

0003.P001

FIGURE 6
0003.P001CIP

Sub-space 710

Sub-space 730

Sub-space 720

A
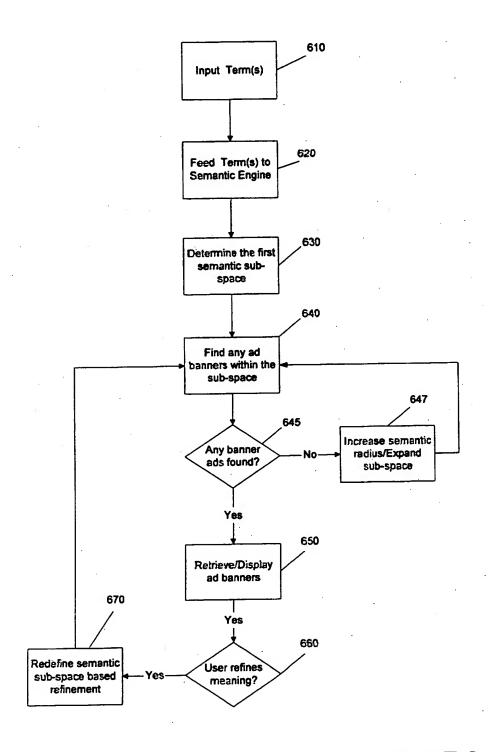
B

E

D

Advertisement 1

F

C

Advertisement 2

FIGURE 7
0003.P001CIP

"Meaning-Based Advertising and Document Relevance De ination"
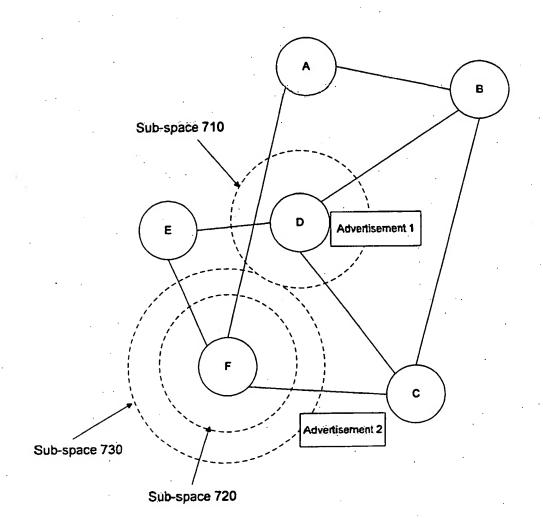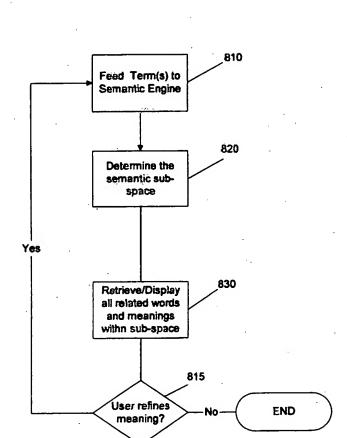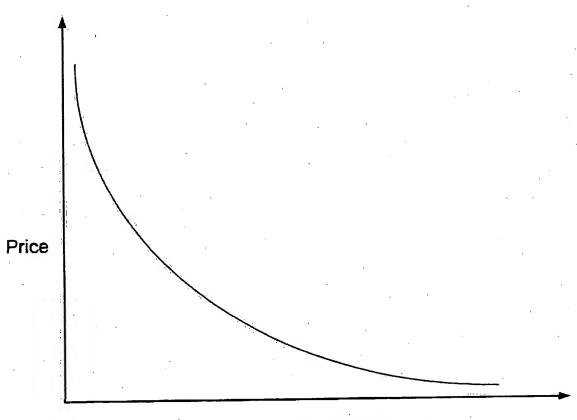Applicants: Adam J. WEISSMAN et al.
Attorney Docket No. 64557.000015

Feed Term(s) to Semantic Engine — 810

Determine the semantic sub-space — 820

Retrieve/Display all related words and meanings withn sub-space — 830

815

User refines meaning? — No — END

Yes

FIGURE 8

0003.P001CIP

Price

Semantic Distance

FIGURE 9
0003.P001CIP